

## NRL 200/360

Air cooled chillers  
Cooling only / Heat Pump  
Outdoor unit  
Scroll compressor  
Axial fans  
Cooling capacity 145/261 tons  
Heating capacity 1.771.379/3.401.018 BTU/h

### R410A



Intertek



- HIGH EFFICIENCY VERSION
- LOW NOISE HIGH EFFICIENCY VERSION
- 2/4 REFRIGERANT CIRCUITS
- VERSION WITH BUILT-IN HYDRONIC KIT

### VERSION AND FEATURES

#### MODELS

- NRL\_° Cooling only
- NRL\_H Heat pump
- NRL\_C Without evaporator

#### VERSIONS

Without hydronic kit system side.

- NRL\_A High efficiency chillers
- NRL\_E High efficiency Low noise chillers

#### RECOVERY

- NRL"A-E" \_D with desuperheater
- NRL"A-E" \_T with total heat recovery

#### OPERATING LIMIT

##### Cooling mode

Max. external air temperature 114,8°F

Min. temperature of water produced 17,6°F

##### Heating mode

Max. external air temperature 107,6°F

Max. temperature of water produced 131°F

#### FEATURES

- High-efficiency scroll compressor with crank case heater
- High efficiency heat exchangers with trace heating as standard
- Axial flow fans for quiet operation
- Microprocessor control system:
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature.
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compen-

sated for external air temperature (with DCPX accessory)

- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Low and high pressure transducers (standard for all units)
- Automatic reset of alarms before tripping
- Display in 4 languages
- Alarm history
- Metal enclosure with anti-corrosion polyester paint.

### ACCESSORIES

#### MECHANICAL ACCESSORIES

- **AVX:** Sprung anti-vibration supports. Select the AVX model from the compatibility table.
- **GP:** Protection grille, protects the external coil from accidental knocks.

#### ELECTRICAL ACCESSORIES

- **AER485:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300**  
Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;  
AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;

AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;

AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **DRE:** It allows the reduction of peak power necessary for the machine during start-up phase.  
**Accessories can only be fitted in the factory.**
- **DUALCHILLER:** Simplified control system to switch on and off, and command, two chillers (using Aermec GR3 command) in a single system, as if they were a single unit.
- **MULTICHILLER:**  
Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.

- **PGS:** Daily/Weekly Programmer.  
Allows you to programme two time bands per day (two switch on/off cycles) and to have differentiated programming for each day of the week.
- **PRM1-PRM2 FACTORY FITTED ACCESSORY.** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

**Compatibility with the VMF system.**

**For further system information please refer to the specific documentation.**

**For more information please contact us.**

## ACCESSORY COMPATIBILITY

Hydronic Kit	NRL 200	NRL 225	NRL 250	NRL 280	NRL 300	NRL 330	NRL 360
<b>00</b>	AVX 767	AVX 7022	AVX 7024	AVX 7027	AVX 7027	AVX 798	AVX 798
<b>P2 / P4</b>	AVX 769	AVX 7022	AVX 7026	AVX 7029	AVX 7029	AVX 800	AVX 800
<b>P1 / P3</b>	AVX 769	AVX 7022	AVX 7026	AVX 7029	AVX 7029	AVX 800	AVX 800
<b>02 / 04</b>	AVX 768	AVX 7023	AVX 7025	AVX 7028	AVX 7028	AVX 799	AVX 799
<b>01 / 03</b>	AVX 768	AVX 7023	AVX 7025	AVX 7028	AVX 7028	AVX 799	AVX 799

Hydronic Kit	NRL-H 200	NRL-H 225	NRL-H 250	NRL-H 280	NRL-H 300	NRL-H 330	NRL-H 360
<b>00</b>	AVX 7015	AVX 7017	AVX 7019	AVX 7019	AVX 7019	AVX 798	AVX 798
<b>P2 / P4</b>	AVX 7015	AVX 7017	AVX 7021	AVX 7021	AVX 7021	AVX 800	AVX 800
<b>P1 / P3</b>	AVX 7015	AVX 7017	AVX 7021	AVX 7021	AVX 7021	AVX 800	AVX 800
<b>02 / 04</b>	AVX 7016	AVX 7018	AVX 7020	AVX 7020	AVX 7020	AVX 799	AVX 799
<b>01 / 03</b>	AVX 7016	AVX 7018	AVX 7020	AVX 7020	AVX 7020	AVX 799	AVX 799

## UNIT CONFIGURATOR

### Field DESCRIPTION

**1,2,3** **NRL**

**4, 5, 6** **SIZE**

200 - 225 - 250 - 280 - 300 - 330 - 360

**7** **COMPRESSOR**

**0** R410A standard compressor

**8** **THERMOSTATIC VALVE**

° standard mechanical thermostatic valve (min. water out temp 39 °F)

**Y** mechanical thermostatic valve (water out temp range 21 ÷ 39 °F)

**X** electronic thermostatic valve (min. water out temp 39 °F, contact the factory for lower

**9** **MODELS**

° Cooling only

**H** Heat Pump

**C** Without Evaporator (data on demand)

**10** **Heat recovery**

° without recovery

**D** with desuperheater

**T** with total heat recovery

**11** **VERSION**

**A** High efficiency

**E** High efficiency low noise (data on demand)

**12** **COILS**

° Alluminium

**R** Copper

**S** Copper tin plated

**V** Epoxy coated

**13** **FANS**

° Standard

**I** Fan speed modulating for condensation control

**14** **SUPPLY**

**6** 230/3/60 with magnet circuit breakers (only for size 100 to 180)

**7** 460/3/60 with magnet circuit breakers

**8** 575/3/60 with magnet circuit breakers

**15,16** **HYDRONIC KIT**

**00** without hydronic kit

**01** tank and single low head pump

**02** tank and single low head pump and reserve pump

**03** tank and single high head pump

**04** tank and single high head pump and reserve pump

**P1** single low head pump

**P2** single low head pump and reserve pump

**P3** single high head pump

**P4** single high head pump and reserve pump

### Configurations not allowed:

YD / YT / YH

HT / HC

CT / CD

T01 / T02 / T03 / T04

"I" ventilation mandatory for Desuperheater "D" option

## TECHNICAL DATA

Mod. NRL	Vers.		200	225	250	280	300	330	360
Cooling capacity	A	Tons	145	166	189	204	220	241	261
Total power input	A	(kW)	178,80	204,80	230,80	247,20	263,00	305,12	347,09
Water flow rate	A	gpm	346	398	450	490	529	578	626
Pressure drop	A	psi	5	6	6	6	7	8	9
<b>ENERGY INDICES</b>									
EER	BTU/Wat	Alls	9,71	9,75	9,78	9,93	10,07	9,49	9,04
IPLV	BTU/Wat	Alls	13,66	13,59	13,66	13,90	14,04	13,59	12,94
Mod. NRL	Vers.		200	225	250	280	300	330	360
Cooling capacity	HA	Tons	141.55	162.53	183.52	197.05	211.16	226.24	245.62
Total power input	HA	(kW)	174.00	199.10	224.20	242.80	261.80	303.98	346.65
Water flow rate	HA	gpm	339	390	440	472	507	542	589
Pressure drop	HA	psi	7	5	5	5	5	6	7
<b>ENERGY INDICES</b>									
EER	All	Watt/Watt	9,77	9,81	9,83	9,75	9,71	8,94	8,51
IPLV	All	BTU/Watt	13,75	13,70	13,74	13,61	13,52	13,32	12,94
Heating capacity	HA	BTU/h	1.771.379	2.004.292	2.237.205	2.427.671	2.621.412	3.055.095	3.401.018
Total power input	HA	(kW)	179,42	206,40	233,38	253,82	268,94	314,82	346,80
Water flow rate	HA	(gpm)	393	445	497	539	582	678	775
Pressure drop	HA	p.s.i.	9	6	6	7	7	10	12
<b>ENERGY INDICES</b>									
COP	All	Watt/Watt	2.89	2.85	2.81	2.82	2.86	2.84	2.87
IPLV	All	BTU/Watt	13,75	13,70	13,74	13,61	13,52	13,32	12,94
Mod. NRL	Vers.		200	225	250	280	300	330	360
<b>SCROLL COMPRESSORS</b>									
Quantity / circuits	All	n° / n°	8/4	8/4	8/4	8/4	8/4	10/4	12/4
Refrigerant	type	All	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Charges	A	lbs C1	77.16	77.16	121.25	121.25	160.94	160.94	160.94
	A	lbs C2	77.16	77.16	121.25	160.94	160.94	160.94	160.94
	A	lbs C3	77.16	121.25	121.25	121.25	160.94	160.94	160.94
	A	lbs C4	77.16	121.25	121.25	160.94	160.94	160.94	160.94
	HA	lbs C1	123.46	123.46	180.78	180.78	187.39	187.39	187.39
	HA	lbs C2	123.46	123.46	180.78	180.78	187.39	187.39	187.39
	HA	lbs C3	123.46	180.78	180.78	180.78	187.39	187.39	187.39
	HA	lbs C4	123.46	180.78	180.78	180.78	187.39	187.39	187.39
<b>EXCHANGERS USER SIDE</b>									
Water connections (in/out)	All	∅	4"	4"	4"	4"	4"	4"	4"
<b>STANDARD FANS °</b>									
Numbers	A	n°	8	12	16	16	16	16	16
	HA	n°	12	14	16	16	16	16	16
Air flow rate	A	cfm	95344	143960	192576	189272	185968	185968	185968
	HA	cfm	147264	173224	199184	199184	199184	198240	195408
<b>SOUND DATA</b>									
Sound pressure	A	dB(A)	60	63	65	66	67	67	67
	HA	dB(A)	96	96	97	98	99	99	99
Sound power	A	dB(A)	92	95	97	98	99	99	99
	HA	dB(A)	64	64	65	66	67	67	67

### COOLING (AHRI CONDITIONS)

Outlet water temperature 6,7°C / 44,6°F  
 Flow rate 0,043l/s per kW  
 External temperature 35°C / 95°F

### HEATING (AHRI CONDITIONS)

Inlet water temperature 40°C / 104°F  
 Outlet water temperature 45°C / 113°F  
 External air temperature 7°C b.s / 6°C b.u.

### AHRI CONDITIONS

leaving water 6.7°C/44.6°F  
 flow rate 0.043 l/s per kW (full load)  
 Load 100% air 35°C/95°F  
 Load 75% air 26.7°C/80.06°F  
 Load 50% air 18.3°C/64.94°F  
 Load 25% air 12.8°C/55.04°F

### SOUND POWER

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

### SOUND PRESSURE

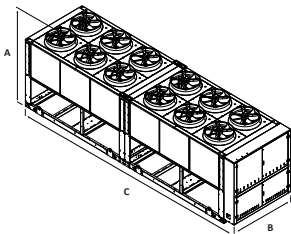
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program Magellan or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

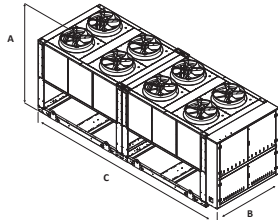
## Dimensions

Mod. NRL				200	225	250	280	300	330	360
Height	A	All	in	96	96	96	96	96	96	96
Width	B	All	in	87	87	87	87	87	87	87
Depth	C	A	in	252	344	437	437	437	437	437
		HA	in	319	378	437	437	437	437	437
Weight (kg)		A	lbs	9878	12348	14774	15303	15788	16251	16979
		HA	lbs	12458	14399	16317	16405	16405	17023	17750

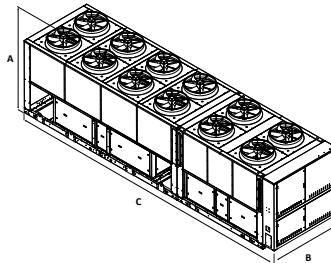
NRL 2000 HA



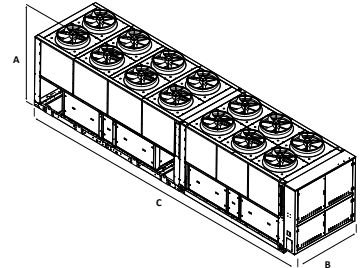
NRL 2000 A



NRL 2250 A



NRL 2250 HA



NRL 2500-2800-3000-3300-3600 HA NRL 2500-2800-3000-3300-3600 A

